

ABSTRACT

The pitch of light beam spots on a light receiving surface of an address detector upon search of information recorded on a holographic recording medium is decreased to 5 reduce a distance between the holographic recording medium and the address detector. In a holographic recording and reproducing apparatus 10, a reference beam having an elliptical beam shape transformed by a beam shaping optical system 30 and an object beam having an unchanged circular 10 shape are projected onto a holographic recording medium 20 so that interference fringes are allowed to be formed only within the elliptical shape. Therefore, even when the distance of an address detector 28 from the holographic recording medium 20 is reduced, crosstalk is prevented between array-shaped two- 15 dimensional photodetectors 28A, 28B, 28C, and so on constituting the address detector 28.